

### REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-10, 12, 13, 15, 17-28 and 33 are pending in the present application. Claims 1, 19, 23 and 33 are amended by the present amendment. No new matter is added.

In the outstanding Office Action, Claims 1, 19, 23, and 33 were rejected under 35 U.S.C. § 112, first paragraph; Claims 1, 19, 23, and 33 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 17, 18, 23, 26-28, and 33 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 6,990,238 to Saffer et al. (herein “Saffer”) in view of Xia Lin et al., “A Self-Organizing Semantic Map for Information Retrieval,” published 1991 (herein “Lin”); Claims 3, 6, 9, 19, 20, 24, and 25 were rejected under 35 U.S.C. § 103(a) as unpatentable over Saffer in view of Lin and U.S. Patent 6,446,061 to Doerre et al. (herein “Doerre”); and Claims 21 and 22 were rejected under 35 U.S.C. § 103(a) as unpatentable over Saffer in view of Lin, Doerre, and U.S. Patent 5,977,992 to Branscomb.

Regarding the rejections of Claims 1, 19, 23, and 33 under 35 U.S.C. § 112, first and second paragraphs, Claims 1, 19, 23, and 33 are amended to remove the phrase “which is not currently displayed within the display area” and to positively recite the claimed features to particularly point out and distinctly claim the subject matter which the Applicants regard as their invention, and using terms to enable a person skilled in the art to make and use the inventions. Accordingly, it is respectfully requested the rejections under 35 U.S.C. § 112, first and second paragraphs, be withdrawn.

Further, Applicants respectfully traverse the rejection of Claims 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 17, 18, 23, 26-28, and 33 under 35 U.S.C. § 103(a) as unpatentable over Saffer and Lin, with respect to amended independent Claims 1, 19, 23, and 33.

Amended Claim 1 is directed to an information retrieval apparatus that includes, in part, a mapping processor and a display processor. Further, according to Claim 1, when viewing a first cluster in one of the hierarchical levels which is present in a view of the display points within the display area of the graphical display, the display processor is operable to generate data representative of an indication which when displayed on the graphical user interface provides a user with a relative direction within the n-dimension space of the location of a second cluster within the same hierarchical level. The relative direction is an indication that can be used to navigate to the second cluster within the n-dimensional display. Further, the graphical user interface is operable to display the indication of the relative direction of the second cluster within the display area of the graphical display with respect to a position of the first cluster in the display area. Moreover, the data representing the number of information items within the cluster is displayable with respect to the indication. Independent Claim 19 includes similar features directed to a video acquisition and processing apparatus, independent Claim 23 includes similar features directed to a method of retrieving and displaying information, and independent Claim 33 includes similar features directed to a computer readable medium including computer program instructions which cause a computer to execute a method of retrieving and displaying information.

Applicants respectfully submit that Saffer and Lin, whether taken individually or in combination, fail to teach or suggest each of the features of the amended independent claims. For example, Saffer and Lin fail to teach or suggest a display processor that generates data representative of an indication, which when displayed on a graphical user interface provides a

user with a relative direction within the n-dimensional space of a location of a second cluster within the same hierarchical level. Further, Saffer and Lin fail to teach or suggest a displayed indication that shows a relative direction of the second cluster within the display area of the graphical display with respect to a position of the first cluster in the display area. Moreover, Saffer and Lin fail to teach or suggest an indication that can be used to navigate to a second cluster within the n-dimension space when the clusters are at the same hierarchical level.

Saffer describes a data process, analysis, and visualization system that determines and displays the relative content and context of related information.<sup>1</sup> Further, Saffer indicates that a visual tool for viewing information is a “galaxy view” that is a “two dimensional scatter graph in which records are organized and depicted in groups (or ‘clusters’) based on relationships between one record and another.”<sup>2</sup> In other words, Saffer only indicates that clusters may be displayed in a “galaxy view.” In addition, Saffer indicates that groups of related records may be selected on a map and may be highlighted in a galaxy view.<sup>3</sup> In other words, Saffer indicates that records may be displayed in a galaxy view including all the records. However, Saffer fails to teach or suggest an indication showing a relationship between clusters, and Saffer fails to teach or suggest that an indication is displayed on the graphical user interface to provide a user with a relative direction within the n-dimensional space of the location of a second cluster within the same hierarchical level. Further, Saffer fails to teach or suggest any relative direction of the second cluster within the display area of the graphical display with respect to a position of the first cluster, and Saffer fails to teach or suggest that the first and second clusters are at a same hierarchical level. Further, it is respectfully submitted that Lin also fails to teach or suggest the claimed features lacking in the disclosure of Saffer.

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<sup>1</sup> Saffer at Abstract.

<sup>2</sup> Saffer at column 20, lines 58-64.

<sup>3</sup> Saffer at column 21, lines 64-67.

Accordingly, Applicants respectfully submit that independent Claims 1, 19, 23, and 33, and claims depending therefrom, patentably define over Saffer and Lin.

Further, the independent claims recite using a self-organizing map to search the map of information items. Since a self-organizing map is used to map the set of information items onto an n-dimensional array of points, clusters of information items which are related to other clusters at the same hierarchical level can be present in different parts of the array.

Furthermore, as a result of the self-organizing map operating on the information items to map the information items onto positions in the array, it is not necessary or relevant to provide a “galaxy view” of the entire array. Thus, a user may advantageously concentrate on a particular cluster of information items using the claimed invention, and that advantage is not available or suggested in the disclosure or Saffer, Lin, Doerre, or Branscomb.

Thus, by providing a relative indication of other clusters at the same hierarchical level a user can navigate to a second cluster, which may not be displayed within a view of the n-dimensional display of display points. Hence, the use of a self-organizing map both allows the clustering of information items with respect to a hierarchical level and presents a technical problem in providing an arrangement in which a user is directed to a related cluster within the same hierarchical level which may be present in a completely different part of the array of points. This technical problem is unrelated to a mere display of information items which are clustered as in the Saffer citation and cannot be solved by merely presenting a “galaxy view” of the entire array.

Accordingly, Applicants respectfully submit that one of skill in the art would have found no motivation in the disclosures of Saffer, Lin, Doerre, or Branscomb to modify the disclosure of Saffer to obtain the claimed features, at least because those references fail to teach or suggest the claimed indication of a relative direction used to navigate to a second

cluster. Accordingly, it is respectfully submitted that independent Claims 1, 19, 23, and 33, and claims depending therefrom, also patentably define over the cited references for that independent reason as well.

In addition, Applicants respectfully traverse the rejections of Claims 3, 6, 9, 19-22, 24, and 25 under 35 U.S.C. § 103(a) as unpatentable over Saffer in view of Lin and Doerre or Branscomb.

Claims 3, 6, 9, 19-22, 24, and 25, depend from independent Claims 1, 19, 23, and 33, which as discussed above are believed to patentably define over Saffer and Lin. Further, it is respectfully submitted that Doerre and Branscomb fail to teach or suggest the claimed features lacking in the disclosures of Saffer and Lin.

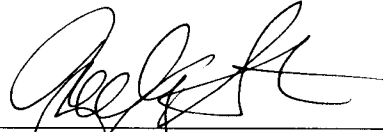
Accordingly, it is respectfully requested the rejections of Claims 3, 6, 9, 19-22, 24, and 25 under 35 U.S.C. § 103(a) also be withdrawn.

Accordingly, Applicants respectfully submit that independent Claims 1, 19, 23, and 33, and claims depending therefrom, are allowable.

Consequently, in light of the above discussion and in view of the present amendment, this application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



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Bradley D. Lytle  
Attorney of Record  
Registration No. 40,073

Customer Number  
**22850**

Tel: (703) 413-3000

Fax: (703) 413 -2220

(OSMMN 03/06)

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Zachary S. Stern  
Registration No. 54,719